



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/786,694

02/25/2004

John M. Harris

CE09312R

3687

22917

7590

08/11/2006

MOTOROLA, INC.
1303 EAST ALGONQUIN ROAD
IL01/3RD
SCHAUMBURG, IL 60196

EXAMINER

ZEWARI, SAYED T

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/786,694	Applicant(s) HARRIS, JOHN M.	
	Examiner Sayed T. Zewari	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2617

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 20, and 27 have been considered but are moot in view of the new ground(s) of rejection.

3. Applicant's arguments filed on 7/06/2006 have been fully considered but they are not persuasive.

4. The applicant's features in the claims wherein a method for use with a wireless mobile station using three modes of operations namely active, dormant, and semi-dormant is adapted comprising of monitoring an relative mobility indicator for providing mobility indicia; using the mobility indicia to adjust an inactivity temporal window during any modes of operation wherein the inactivity temporal window determines the duration the mobile station remains in any of modes of operation, reads on Rosen et al., Haartsen et al., and Suzuki et al. as follows.

5. Rosen et al. discloses a method for use with a wireless mobile station that is adapted and configured to interact with a wireless communication system using at least a first, second, and third mode of operation. Rosen further discloses that first mode of operation comprises an active mode of operation, the third mode of operation comprises a dormant mode of operation and the second

Art Unit: 2617

mode of operation comprises a semi-dormant mode of operation. Therefore

Rosen discloses all the limitations of the claims of the applicant.

6. Haartsen discloses monitoring at least one indicator of communication resources setup delay information as corresponds to the wireless communication system to provide a setup delay indicia. Using the setup delay indicial to adjust an inactivity temporal window as corresponds to the wireless mobile station during a mode of operation wherein the inactivity temporal widow is the duration the mobile station remains in one of the modes of operation. Therefore Haartsen discloses all the limitations of the claims of the applicant.

7. Applicant's argument stating that Haartsen disclose two modes of operation, an active mode and a sleep mode is not persuasive. Although, Haartsen discloses three different modes of operation, applicant is presented with another reference clearly indicating three modes of operation (See Rosen).

8. Applicant's argument stating that Suzuki does not use the location registration information as a relative indicia of the movement within system is not persuasive. Suzuki inherently discloses this limitation. Whenever a mobile station registers with a system, its location information can inherently be used to determine the rate of its movement within the wireless communication system.

9. Applicants remarks stating that cited references do not disclose, teach or suggest the modifying and adjusting the inactivity temporal window or its equivalent as a function of measured indicia are not persuasive. Rosen and Haartsen disclose a method configured for three modes of operation namely active mode, dormant and semi dormant mode. Haartsen further discloses

Art Unit: 2617

monitoring one indicator regarding the wireless station to provide an indicia; using the indicia to adjust an inactivity temporal window during at least one of the modes of operation. However, Haartsen does not specifically disclose an indicator of relative mobility. But Suzuki discloses an indicator of relative mobility regarding the wireless mobile station to provide mobility indicia. This indicator of relative mobility is the location registration information that can inherently be used to determine the rate of movement of mobile station within a wireless communication system. As a result Suzuki is used to modify Haartsen and Rosen to show that these features are obvious to one of ordinary skill in the art.

DETAILED ACTION

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1, 3-5, 7-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosen (US 6,725,053) in view of Haartsen (US 6,804,542 B1) and further in view of Suzuki et al (US 5,301,225).

With respect to claim 1, Rosen discloses a method for use with a wireless mobile station that is adapted and configured to interact with a wireless

Art Unit: 2617

communication system using at least a first, second, and third modes of operation (**See Rosen's figure 7, col.15 lines 32-44**), wherein the first mode of operation comprises an active mode of operation where inherently the mobile station actively uses an allocated communications channel operation (**See Rosen's figure 7, col.15 lines 32-44, lines 16-31**), the third mode of operation comprises a dormant mode of operation where inherently the mobile station is without an allocated communications channel (**See Rosen's figure 7, col.15 lines 32-44, lines 16-31**), and the second mode of operation comprises a semi-dormant mode of operation where the mobile station maintains at least a portion of the allocated channel (**See Rosen's figure 7, col.15 lines 32-44, lines 16-31**). However, Rosen does not specifically disclose monitoring at least one indicator of mobility within the wireless communication system to provide mobility indicia. But Haartsen discloses monitoring an indicator regarding the wireless mobile station to provide an indicia; using the indicia to adjust an inactivity temporal window during at least one of the modes of operation wherein the inactivity temporal window determines a duration the wireless mobile station remains in the at least one of the modes of operation (**See Haartsen figure 6 & 7, col.8 lines 20-28, 45-56 where the indicia measured is the idle time and where Haartsen monitoring channel activity**). It would be obvious to one of ordinary skill in the art at the time the invention was made to modify the invention disclosed by Rosen, and provide an indicator of mobility providing a mobility indicia, thereby conserving power in a portable radio network, as disclosed by Haartsen (**See Haartsen col.3 lines 62-64**). However, Rosen and Haartsen do

Art Unit: 2617

not specifically disclose an indicator of relative mobility regarding the wireless mobile station to provide a mobility indicia. But Suzuki discloses an indicator of relative mobility regarding the wireless mobile station to provide a mobility indicia **(See Suzuki col.6 lines 34-37, 49-55)**. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention disclosed by Rosen and Haartsen, and provide an indicator of relative mobility providing a mobility indicia, thereby reducing power consumption and occupying network resources, as discussed by Suzuki **(See Suzuki col.2 lines 25-29)**.

With respect to claim 3, Rosen, Haartsen and Suzuki disclose all the limitations of claim 1. Suzuki further discloses accessing at least one metric that corresponds to radio frequency measurement report messages **(See Suzuki col.6 lines 34-37, 49-55)**.

With respect to claim 4, Rosen, Haartsen and Suzuki disclose all the limitations of claims 1 and 3. Haartsen further discloses accessing a metric that corresponds to a rate at which the wireless mobile station transmits radio frequency measurement report messages **(See Haartsen col.8 lines 20-28, 45-56, and figure 6 & 7)**.

With respect to claim 5, Rosen, Haartsen and Suzuki disclose all the limitations of claim 1. Haartsen further discloses an operating capability determination and the inactivity temporal window as a function, at least in part, of the operating capability of the wireless mobile station **(See Haartsen figure 6, 7, col.8 lines 20-28, 45-56)**.

With respect to claim 7, Rosen, Haartsen and Suzuki disclose all the limitations of claim 7.

With respect to claim 8, Rosen, Haartsen and Suzuki disclose all the limitations of claim 1. Haartsen further discloses monitoring at a radio access network (RAN) **(See col.3 line 10, col.5 lines 40-45, where Bluetooth communication system accesses other mobile units).**

With respect to claim 9, the above combinations disclose all the limitations of claim 9.

With respect to claim 10, the above combinations disclose all the limitations of claim 10.

With respect to claim 11, the above combinations disclose all the limitations of claim 11.

With respect to claim 12, the above combinations disclose all the limitations of claim 12.

With respect to claim 13, the above combinations disclose all the limitations of claim 13.

With respect to claim 14, the above combinations disclose all the limitations of claim 14.

With respect to claim 15, the above combinations disclose all the limitations of claim 15.

With respect to claim 16, Rosen, Haartsen and Suzuki disclose all the limitations of claim 1 and 15. Haartsen further discloses monitoring wireless communication system setup times for a plurality of wireless communication units

Art Unit: 2617

to provide a setup time indicia (**See Haartsen figure 6 & 7, col.8 lines 20-28, 45-56 where the indicia measured is the idle time and where Haartsen discusses monitoring channel activity**). Moreover, Haartsen discloses a peer-to-peer communication system where the mobile station monitors channels activities of different mobile units (**See col.3 line 10, col.5 lines 40-45**).

With respect to claim 17, the above combinations disclose all the limitations of claim 17.

With respect to claim 18, the above combinations disclose all the limitations of claim 17.

With respect to claim 19, the above combinations disclose all the limitations of claim 19.

12. Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosen (US 6,725,053) in view of Haartsen (US 6,804,542 B1), Suzuki et al (US 5,301,225) and further in view of Park et al. (US 2003/0,114,159).

With respect to claim 2, Rosen, Haartsen and Suzuki disclose all the limitations of claim 1. However they do not specifically disclose monitoring a hand-off rate. But Park discloses a method of monitoring a hand off rate (**See Park section [0026]**). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the inventions disclosed by Haartsen and Suzuki and provide hand-off rate, as taught by Park, thereby

Art Unit: 2617

reducing power consumption and occupying network resources, as discussed by Park **(See Park section [0032])**.

With respect to claim 6, Rosen, Haartsen and Suzuki disclose all the limitations of claim 1 and 2. However they do not specifically disclose monitoring a hand-off rate at a predetermined amount of time. But Park discloses a method of monitoring a hand off rate for a predetermined amount of time **(See Park section [0030], and [0078])**. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the inventions disclosed by Haartsen and Suzuki and provide hand-off rate, as taught by Park, thereby reducing power consumption and occupying network resources, as discussed by Park **(See Park section [0032])**.

13. Claims 20-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haartsen (US 6,804,542 B1) in view of Suzuki et al (US 5,301,225).

With respect to claim 20, Haartsen discloses an apparatus with inherent first memory having indicia information as pertains to at least a first wireless mobile station stored therein wherein the mobility indicia information pertains to the rate of movement of the first wireless mobile station within a wireless communication system **(See Haartsen figure 7, where the flow chart indicates the inherent presence of a control unit which runs the software. This software needs a storage place, a memory)**. Haartsen further discloses an inherent second memory having information corresponding to an inactivity timer

Art Unit: 2617

as pertains to the first wireless mobile station stored therein (**See Haartsen figure 2-8, col.3 lines 14-22, 47-51, col.4 lines 11-43, 53-61, col.5 lines 1-10, col. 6 lines 17-26, 55-57, where second memory can be another segment of the first memory. Furthermore the second memories include EEPROM, ROM, or Flash memory which are inherent part of a control unit**). Haartsen further discloses a processing platform that is operably coupled to the first and second memory and having instructions stored therein to modify operation of the inactivity timer as a function, at least in part, of the mobility indicia information wherein the inactivity timer determines a duration the first wireless mobile station remains in at least one of a plurality of modes of operation (**See Haartsen figure 7, where the flow chart indicates the inherent presence of a control unit which runs the software. This control unit inherently needs to be coupled to memory in order to function**). However Haartsen does not specifically disclose a mobility indicia information. But Suzuki discloses a mobility indicia (**See Suzuki col.3, lines 3-30, col.6 lines 15-24, 34-37, 49-55, figure 2 and 3**). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention disclosed by Haartsen and provide a mobility indicia, as taught by Suzuki, thereby reducing power consumption and occupying network resources, as discussed by Suzuki (**See Suzuki col.2 lines 25-29**).

With respect to claim 21, Haartsen and Suzuki disclose all the limitations of claim 20. Furthermore, Haartsen discloses the apparatus comprises an

Art Unit: 2617

infrastructure element of a wireless communication system (**See Haartsen col.5 lines 40-45**).

With respect to claim 22, Haartsen and Suzuki disclose all the limitations of claims 20 and 21. Haartsen further discloses the infrastructure element comprises a radio access network (RAN) (**See Haartsen col.5 lines 40-45**).

With respect to claim 23, Haartsen and Suzuki disclose all the limitations of claim 20. Haartsen further discloses the apparatus comprises a wireless mobile station (**See Haartsen col.5 lines 40-45**).

With respect to claim 24, Haartsen and Suzuki disclose all the limitations of claim 20. Haartsen further discloses the apparatus comprises a combination of an infrastructure element of a wireless communication system and a wireless mobile station (**See Haartsen col.5 lines 40-45**).

With respect to claim 25, Haartsen and Suzuki disclose all the limitations of claim 20. Haartsen further discloses an inherent third memory having communication resources setup delay information stored therein (**See Haartsen figure 2-8, col.3 lines 14-22, 47-51, col.4 lines 11-43, 53-61, col.5 lines 1-10, col. 6 lines 17-26, 55-57, where third memory can be another segment of the first memory. Furthermore the third memories include EEPROM, ROM, or Flash memory which are inherent part of a control unit**). Haartsen also discloses the processing platform further operably couples to the third memory and the instructions further modify the operation of the inactivity timer as a function, at least in part, of the setup delay information (See Haartsen figure 7, where the flow chart indicates the inherent presence of a control unit which runs

Art Unit: 2617

the software. This control unit inherently needs to be coupled to memory in order to function).

With respect to claim 26, the above combinations disclose all the limitations of claim 26.

14. Claims 27, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosen (US 6,725,053) in view of Haartsen (US 6,804,542 B1).

With respect to claim 27, Rosen discloses a method for use with a wireless mobile station that is adapted and configured to interact with a wireless communication system using at least a first, second, and third modes of operation (**See Rosen's figure 7, col.15 lines 32-44**), wherein the first mode of operation comprises an active mode of operation where inherently the mobile station actively uses an allocated communications channel operation (**See Rosen's figure 7, col.15 lines 32-44, lines 16-31**), the third mode of operation comprises a dormant mode of operation where inherently the mobile station is without an allocated communications channel (**See Rosen's figure 7, col.15 lines 32-44, lines 16-31**), and the second mode of operation comprises a semi-dormant mode of operation where the mobile station maintains at least a portion of the allocated channel (**See Rosen's figure 7, col.15 lines 32-44, lines 16-31**). However, Rosen does not specifically disclose monitoring at least one indicator of communication resources setup delay information as corresponds to the wireless communication system to provide a setup delay indicia. But Haartsen discloses monitoring at least one indicator of communication resources

Art Unit: 2617

setup delay information as corresponds to the wireless communication system to provide a setup delay indicia (**See Haartsen figure 6 & 7, col.8 lines 20-28, 45-56 where the indicia measured is the idle time and where Haartsen discusses monitoring channel activity**), using the setup delay indicial to adjust an inactivity temporal window as corresponds to the wireless mobile station during a mode of operation wherein the inactivity temporal window determines a duration the wireless mobile station remains in one of the first, second and third modes of operation (**See Haartsen figure 6 & 7, col.8 lines 20-28, 45-56 where the indicia measured is the idle time and where Haartsen discusses monitoring channel activity**). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention disclosed by Rosen and provide an indicator of communication resources setup delay information, as corresponds to the wireless communication system to provide a setup delay indicia (**See Haartsen figure 6 & 7, col.8 lines 20-28, 45-56 where the indicia measured is the idle time and where Haartsen discusses monitoring channel activity**), thereby providing a semi dormant mode, as discussed by Haartsen (**See Haartsen col.3 lines 14-22, lines 47-51, col.4 lines 1-43, lines 53-61**).

With respect to claim 28 and 29, the above combinations disclose all the their limitations.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

16. Lindoff (US 5,179,724) discloses a portable communication apparatus having three modes of operation.

17. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sayed T. Zewari whose telephone number is 571-272-6851. The examiner can normally be reached on 8:30-4:30.

19. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester G. Kincaid can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

20. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sayed T. Zewari

July 28, 2006



LESTER G. KINCAID
SUPERVISORY PRIMARY EXAMINER